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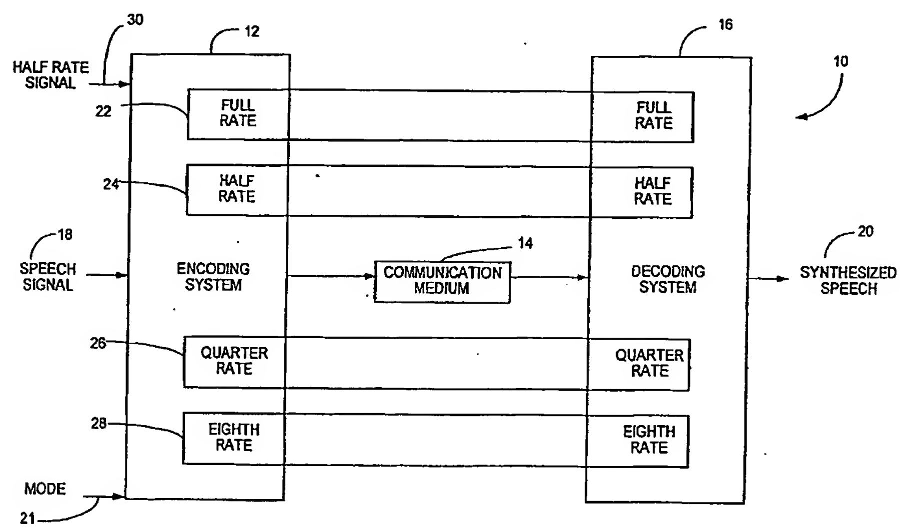
(54) Title: MULTIMODE SPEECH ENCODER



(57) **Abstract:** A speech compression system (10) capable of encoding a speech signal (18) into a bitstream for subsequent decoding to generate synthesized speech (20) is disclosed. The speech compression system (10) optimizes the bandwidth consumed by the bitstream by balancing the desired average bit rate with the perceptual quality of the reconstructed speech. The speech compression system (10) comprises a full-rate codec (22), a half-rate codec (24), a quarter-rate codec (26) and an eighth-rate codec (28). The codes (22, 24, 26 and 28) are selectively activated based on a rate selection. In addition, the full and half-rate codecs (22 and 24) are selectively activated based on a type classification. Each codec (22, 24, 26 and 28) is selectively activated to encode and decode the speech signal (18) at different bit rates emphasizing different aspects of the speech signal (18) to enhance overall quality of the synthesized speech (20).

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